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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/719,404

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Steven Edward Klein

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KONRAD RAYNES & VICTOR, LLP.

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EXAMINER

WALSH, JOHN B

ART UNIT

PAPER NUMBER

2151

MAIL DATE

DELIVERY MODE

07/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/719,404

Applicant(s)

KLEIN ET AL.

Examiner

John B. Walsh

Art Unit

2151

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-85/86)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-8 and 10-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites “receiving the query at the second device, prior to determining, at the first device, whether to continue I/O operations from the first device to the second device; determining, at the second device, whether the first device is a valid initiator to the second device; and sending the response from the second device, wherein the response indicates that the second device does not consider the first device to be logged in to the second device, in response to determining that the first device is not the valid initiator to the second device, wherein the first device uses a PDISC Extended Link Service frame, a first LS_ACC frame, a first LOGO frame, and a first LS_RJT frame, wherein the second device uses a second LS ACC frame, a second LOGO frame, and a second LS RJT frame.”

The applicant has indicated these new amendments are supported by at least figure 5. It appears the receiving step corresponds to fig. 5- 500 and the determining if valid initiator step corresponds to fig. 5-502, 506. The next step in the claim indicates the second device does not consider the first device to be logged in which corresponds to Fig.5-506-“No” branch. This step would lead to fig. 5-510 wherein the second device sends a LS_RJT frame or a LOGO frame, or some other response. However this is not what is being recited in claim 1. Claim 1 indicates “the

first device uses a PDISC Extended Link Service frame, a first LS_ACC frame, a first LOGO frame, and a first LS_RJT frame, wherein the second device uses a second LS ACC frame, a second LOGO frame, and a second LS RJT frame” when the second device does not consider the first device to be logged in. Thus the claims conflict with the disclosed operation of the device as indicated by Figure 5. Furthermore Figure 4, indicates sending particular frames, however it does not indicate sending all three frames to satisfy the condition. It is unclear from the claim if the devices are sending all of these frames or just selecting from any of these frames and sending one of them. Also it is unclear where the frames associated with the first device fit into the progression of steps in the claim. The claims are unclear and the metes and bounds of the claim cannot be ascertained.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. As best understood claims 1-8 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,609,165 to Frazier as applied above in view of “Fibre Channel Framing and Signaling” (herein referred as FC-FS).

As concerns claim 1, determining, by a first device (figure 1; col. 2, lines 37-38), a possibility of an invalidation of a second device (figure 1; col. 2, lines 37-38), wherein the first device is coupled to the second device via a fabric (figure 1; column 2, line 40; column 2, lines

35-55); sending a query (col. 5, line 34; col. 41, lines 22-31) from the first device to validate the second device (col. 48, line 63-col. 49 line 12), in response to determining the possibility of the invalidation of the second device (col. 5, e), f) and g); and determining, at the first device, whether to continue I/O operations from the first device to the second device based on receiving a response (col. 41, lines 32-35) to the query within a time period (column 47, lines 65-67).

As concerns claim 2, wherein determining, by the first device, the possibility of the invalidation of the second device, further comprises: determining whether the first device has received either a notification of a state change (col. 47, lines 50-51) from the fabric or has timed out (column 47, lines 26-27, 65-67) while waiting for a completion of an I/O operation sent from the first device to the second device.

As concerns claim 3, wherein sending the query further comprises: sending a service frame from the first device to the second device, wherein the service frame (column 48, line 63-column 49, line 12; col. 41, lines 22-31) is capable of determining a presence of the second device without disrupting the I/O operations.

As concerns claim 4, wherein the service frame is a PDISC Extended Link Service frame (column 48, line 63-column 49, line 12).

As concerns claim 5, further comprising: continuing the I/O operations, if the response to the query within the time period is a frame that validates the World Wide Node Name and the World Wide Port name associated with a connection to the second device (col. 47, lines 62-col. 48, line 20).

As concerns claim 6, wherein the frame is an LS_ACC frame (col. 62, line 12).

As concerns claim 7, further comprising: terminating a connection from the first device to the second device, if the response to the query is not received within the time period (col. 47, lines 26-27) or if the response is a frame that indicates that the second device does not consider the first device to be logged in to the second device (col. 27, lines 41-46).

As concerns claim 8, wherein the frame is a LOGO frame (col. 63, lines 13-16) or a LS_RJT frame.

As concerns claim 10, further comprising: receiving the query at the second device, prior to determining, at the first device, whether to continue I/O operations from the first device to the second device; determining, at the second device, whether the first device is considered to be logged in to the second device; and sending the response from the second device, wherein the response indicates that the second device considers the first device to be logged in to the second device, in response to determining that the first device is considered to be logged in to the second device (col. 30, lines 60-64-requires acceptance; col. 47, line 53).

As concerns claim 12, wherein the first and second devices are fibre channel adapters (col. 63, lines 25 and 35; col. 3, lines 20-24) coupled to primary and secondary storage controllers (col. 3, lines 10-11) respectively, wherein the fabric is a switched fabric (column 47, line 46), and wherein the fibre channel adapters communicate using extended link services commands (column 48, line 63-column 49, line 12).

Frazier '165 does not explicitly disclose the indication of the second device does not consider the first device to be logged in.

FC-FS teach indication of a device not being logged in (p. 160-12.3.2.7.4, 12.3.2.8-8.1; p. 267- 12.3.3.4-4.1), login conditions (p. 56-60, 133, 159-160, 182-184) and a PDISC (p. 234-235), LOGO (p. 160-161), LS_ACC (p. 161,266,305,476) and LS_RJT (p. 267) frames.

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide the system of Frazier '165 with an indication of a devices logged status, as taught by FC-FS, in order to provide a means of controlling the flow of data. Such a modification is merely a combination of known elements yielding predictable results.

Response to Arguments

5. Applicant's arguments filed March 31, 2008 have been fully considered but they are not persuasive. The claims have been rejected as best understood and at this time it appears the prior art of Frazier in combination with FC-FS disclose the known elements of the claim wherein it would have been obvious to one of ordinary skill in the art at the time of the invention to combine them to yield predictable results as addressed above.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Walsh whose telephone number is 571-272-7063. The examiner can normally be reached on Monday-Thursday from 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John B. Walsh/
Primary Examiner, Art Unit 2151